

WHAT IS CLAIMED IS:

1. An integrated design system of an electric power steering apparatus in which a steering assisting force is given to a steering mechanism based on a current control value calculated from a motor current value detected by a motor current detection means, and a steering auxiliary command value calculated by a calculation means based on a steering torque and a vehicle speed, comprising:

a simulation controller for connecting an analysis tool of control system, an analysis tool of motor electromagnetic field and an analysis tool of mechanism of vehicle through an interface, and carrying out integrated simulation of said electric power steering apparatus.

2. An integrated design system of an electric power steering apparatus according to Claim 1, wherein said simulation controller controls and manages entire sequence by calling sub-routines through said interface.

3. An integrated design system of an electric power steering apparatus according to Claim 1, wherein said simulation controller has a maneuver, a simulation, a data to be produced, and a function for storing a result in a readable common file.

4. An integrated design system of an electric power steering apparatus according to Claim 1, wherein said interface converts formats of said analysis tool of control system, said analysis tool of motor electromagnetic field and said analysis tool of mechanism of vehicle into a same format.

5. An integrated design system of an electric power steering apparatus according to Claim 4, wherein said interface converts files of said analysis tools into a readable common file, and produces an index array which explains a conversion sequence.

6. An integrated design system of an electric power steering apparatus according to Claim 4, wherein said interface has functions of standardization of data definitions, standardization of formats, and high speed communication of data.